[reacting by] each one of said network terminators [(NT1, NT2, ..., NT16) upon reception and recognition of its own grant by] transmitting an upstream data packet in a predefined upstream timeslot in response to reception and recognition of its own grant,

characterised in that said step of transmitting includes,

transmitting said upstream data packet in a lower order timeslot in the event when said one of said network terminators is a lower order network terminator and said predefined place is a predefined first place, [transmitting said upstream data packet in a lower order timeslot,]

transmitting said upstream data packet in one of a plurality of higher order timeslots in the event when said one of said network terminators is a higher order network terminator and said predefined place is a predefined first place, [transmitting said upstream data packet in one of a plurality of higher order timeslots,] said higher order timeslots being subslots of a predefined number of higher order subslots included in said predefined upstream timeslot, and

transmitting said upstream data packet in a said higher order timeslot in the event when said one of said network terminators is a higher order network terminator and said predefined place is a predefined second place[, transmitting said upstream data packet in a said higher order timeslot].

2. (Amended) A line terminator [(LT)] for realising division of upstream timeslots in a time division multiple access system that couples said line terminator [(LT)] via a tree-like network to a plurality of network terminators [(NT1, NT2, ..., NT16)] and wherein said line terminator (LT) distributes downstream data packets to said plurality of network terminators [(NT1, NT2, ..., NT16)] said line terminator [(LT)] comprising :

[inclusion means (INC)] an insertion device adapted to include in a downstream data packet at a predefined first place a grant [(TEA1 ; TEA2 ; ....; TEA16)] associated [to] with one of said plurality of network terminators, characterized in that

said [inclusion means (INC)] insertion device is further adapted in the event when one of said plurality of network terminators [(NT3)] is a higher order network terminator to include at a predefined second place of said downstream data packet a grant [(TEA3)] being associated [to] with said one of said plurality of network terminators [(TEA3)].

3. A network terminator [(NT3)] for use in a time division multiple access system that couples a line terminator [(LT)] via a tree-like network to a plurality of network terminators [(NT1, NT2, ..., NT16)] including said network terminator [(NT3)], said network terminator [(NT3)] comprising :

[recognition means (REC)] a transmitter to recognise its own grant [(TEA3)] in a downstream packet sent from said line terminator [(LT)] to said network terminator [(NT3)], and

transmitting means [(TR)] to transmit a data packet in a predefined upstream timeslot upon recognition of said own grant](TEA3)]

characterised in that said network terminator [(NT3)] is adapted to transmit upstream data packets at a higher order data packet rate and that therefor

said recognition means [(REC)] is further adapted to recognise its own grant [(TEA3)] at a predefined first place and that said transmitting means [(TR)] is adapted, upon recognition by said recognition means [(REC)] of said own grant [(TEA3)] at said predefined first place to transmit data packet in one of a plurality of higher order timeslots, said higher order timeslots being a subslot of a predefined number of higher order subslots included in said predefined upstream timeslot, and

said recognition means [(REC)] being further adapted to recognise its own grant [(TEA3)] at a predefined second place and that said transmitting means [(TR)] is further adapted, upon recognition by said recognition means [(REC)] of said own grant [(TEA3)] at said predefined second place, to transmit said data packet in a said higher order timeslot.

4. (Amended) [Method] A method according to claim 1, characterized in that said time division multiple access system is a Passive Optical Network (PON) system and that said downstream data packets are Physical Layer Operation and Maintenance (PLOAM) cells.